Problem of the Week
Problem A and Solution
Banana Bonanza

Problem

Three monkeys found a tree that has 54 bananas growing on it. Each monkey eats two bananas a day from the tree, and no other animals eat any of the bananas.

(a) How many bananas will be left on the tree at the end of the first day?

(b) If they start eating from the tree on a Monday, on what day of the week will they eat the last banana?

Solution

(a) Since each monkey eats 2 bananas and there are 3 monkeys, this means $2 + 2 + 2$ or $2 \times 3 = 6$ bananas are eaten from the tree each day. Since the tree started with 54 bananas, this means it will have $54 - 6 = 48$ bananas left at the end of the first day.

(b) We can make a table to keep track of how many bananas are left on the tree at the end of each day, knowing that the monkeys eat 6 bananas a day. From part (a), we know that there are 48 bananas left at the end of the first Monday.

Day	Bananas Left at End of Day
Monday	48
Tuesday	42
Wednesday	36
Thursday	30
Friday	24
Saturday	18
Sunday	12
Monday	6
Tuesday	0

From this table, we can see that they will eat the last banana on a Tuesday.